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SUBJECT: **ARCHITECTURAL TECHNICAL GUIDE 0019 (January 1, 2005)**
Lead-Based Paint Investigation, Mitigation, and Certification: Requirements for Single Family Housing and Multi-Family Housing Existing Construction

PURPOSE:

The purpose of this Architectural Technical Guide (ATG) is to disseminate information regarding current requirements for the investigation, mitigation, and certification of lead-based paint in construction components in existing single family residences and multi-family housing projects. This ATG contains the following major headings:

Background,
Implementation Responsibilities,
Lead-Based Paint Compliance Key,
Lead-Based Paint Support Team,
Exempt Housing,
Possible Funding Sources for Compliance Activities,
State and Local Requirements,
Lead-Based Paint Information Sources,
Points of Contact,
Cost Data for LBP Investigation and Remediation,
Frequently Asked Questions
Additional Resources

Background

Lead oxide and lead chromate were originally used in the manufacture of paint materials because they were found to hold color and sheen very well and be very durable in wet conditions. Relatively recently (circa 1978) the lead component was replaced by a titanium base. Lead-based paints were found to work remarkably well in kitchens, bathrooms, windows, and doors.

Federal requirements intended to reduce/eliminate the content of lead content in paints used in residential construction were established initially by the U.S. Department of Housing and Urban Development (HUD) and later as a joint-venture between HUD and the U.S. Environmental Protection Agency (EPA). Initially, the U.S. Congress passed the *Lead Based Paint Poisoning Prevention Act* of 1971 and it became the basic-lead based paint mitigation law affected federally assisted housing until amended in 1992. It established, for example, a prohibition on the use of paint

materials with any lead content in HUD assisted housing projects via the HUD *"Minimum Property Standards"* for single family housing and multi-family housing.

The U.S. Congress added Title IV to the *Toxic Substances Control Act* (TSCA), entitled *Lead Exposure Reduction*, in 1992 to increase public awareness. Title IV of the TSCA directed EPA to address the general public's risk of exposure to lead-based paint hazards through regulations, education, and other activities. It directed EPA to publish a lead hazard information pamphlet providing comprehensive information to the general public on lead-based paint in housing, the risks of exposure, and the precautions for avoiding exposure. These pamphlets were to be distributed to owners and occupants of housing projects. The housing focus was paint inhaling/ingestion by small children where it had apparently been determined to have a most detrimental effect: chronic neurological system damage. It was then estimated that about 900,000 children under age 6 were at or over the Center for Disease Control's level of concern in this regard.

Lead-Based Paint Poisoning Prevention Act of 1971 and Title IV to the *Toxic Substances Control Act* requirements were eventually incorporated into Rural Development Instruction 1924-A, Exhibit H.

The U.S. Congress passed Title X of the *Housing and Community Development Act of 1992*, called the *Residential Lead-Based Paint Hazard Reduction Act of 1992*, establishing Section 1012 and 1013 requirements under Title X and amending the *Lead Based Paint Poisoning Prevention Act* of 1971. The HUD and EPA Final Rule for implementing Title X was long in development and was finally issued on September 15, 1999. It was scheduled to take effect one year later. Section 1012 related directly to housing receiving federal assistance and Section 1013 pertained directly to sales of federally owned housing. EPA was assigned a must bigger role than before in developing technical guidance for the implementation of Sections 1012 and 1013.

The *Residential Lead-Based Paint Hazard Reduction Act of 1992* established specific requirements stressing:

Identification of hazards,
Notification to occupants of the presence of hazards, and
Control of hazards.

*Residential Lead-Based Paint Hazard Reduction Act of 1992 (*HUD/EPA) Final Rule requirements have been communicated by the National Office through Administrative Notices so far. It is Rural Development's intention to ultimately incorporate them into a separate Exhibit of the to-be-issued, revised, Rural Development Environmental Instruction.

Implementation Responsibilities

Title X of the *Housing and Community Development Act of 1992*, (aka. *Residential Lead-Based Paint Hazard Reduction Act of 1992)*, Section 1012 and 1013 requirements (hereinafter referred to as the "LBP regulations") govern current Rural Development decision making in this regard. Six subparts impact Rural Development programs. These subparts replace what is currently presented in Rural Development Instruction 1924-A, Exhibit H, and take precedence over what is presently in all Rural Development Instructions and handbooks concerning lead-based paint. The requirements of these subparts are to all housing constructed prior to 1978 that is being financially assisted or being sold by Rural Development.

Following are the six subparts of the LBP regulations adopted by Rural Development and the programs each subpart affects:

Subpart A:	**Disclosure of LBP Hazards upon Sale or Lease of Residential Properties** (502, 514, 515, 516, 538, CF, B&I programs) (Applies to all residential housing in Rural Development Programs built prior to 1978.)
Subpart B:	**General LBP Requirements and Definitions** (502, 504, 514, 515, 516, 521, 533, 538, CF, B&I programs) (Applies to all residential housing in Rural Development Programs built prior to 1978.)
Subpart C:	**Disposition of Residential Property Owned by a Federal Agency other than HUD** (502, 514, 515, 516, CF, B&I programs) (Provides specific requirements depending on whether housing is receiving financial assistance from Rural Development or being sold by Rural Development, type and amount of financial assistance, age of structure, and whether dwelling is rental or owner-occupied.)
Subpart D:	**Project-Based Assistance Provided by a Federal Agency other than HUD** (514, 515, 516, 521, 538, CF, B&I programs) (Provides specific requirements depending on whether housing is receiving financial assistance from Rural Development or being sold by Rural Development, type and amount of financial assistance, age of structure, and whether dwelling is rental or owner-occupied.)
Subpart J:	**Rehabilitation (Applicable Sections)** (502, 504, 514, 515, 516, 533, CF, B&I programs) (Provides specific requirements depending on whether housing is receiving financial assistance from Rural Development or being sold by Rural Development, type and amount of financial assistance, age of structure, and whether dwelling is rental or owner-occupied.)
Subpart R:	**Methods and Standards for LBP Hazard Evaluation and Hazard Reduction Activities** (502, 504, 514, 515, 516, 521, 533, 538, CF, B&I programs) (Applies to all residential housing in Rural Development Programs built prior to 1978.)

Lead-Based Paint Compliance Key

Historically, ensuring lead-based paint disclosure has been Rural Development's main compliance requirement and this continues to be the situation for the majority of the agency's program activities. Rural Development activities that include rehabilitation (i.e. Section 504) or the sale of real estate owned (REO) properties, however, have additional compliance requirements under the LBP regulations. The "Lead-Based Paint Compliance Key" (LBPCK) has been developed to act as a step-by-step guide for identifying actions Rural Development must take to achieve full compliance with the requirements of the LBP regulations in all affected programs. The LBPCK decision-tree is intended for use at the start of the loan or grant making process and prior to foreclosure. The LBPCK should be used by all programs except Guaranteed Single Family Housing prior to the commitment of

Rural Development resources. Guaranteed Single Family Housing should use the LBPCK during lender compliance review monitoring.

A computer-based version of the LBPCK is available on the Rural Development Intranet site @ http:teamusda.gov/rd/rhs/PSS/Lead/index.htm. This tool has automated the LBPCK questions so they can be answered on-line. The on-line responses are used to generate a project specific report that outlines and documents compliance requirements for each property subject to the LBP regulations. The tool also provides access to the LBP regulations and definitions.

A completed copy of the LBPCK or a computer-based version of the LBPCK should be included in each project case file.

Lead-Based Paint Support Team

Each state has assembled a LBP Support Team, composed of technical representatives and program representatives. These individuals are appointed by the State Director and serve as the State-level contacts familiar with the specific requirements of adopted subparts of the LBP regulations as they relate to each program. The latest news on LBP compliance is forwarded to these individuals prior to general dissemination. Each state team serves as the point-of-contact between the State Office and the National Office. The State LBP Support Team list can be found on the Rural Development Intranet site @ http://teamrd.usda.gov/rd/rhs/index.htm or by contacting the State Environmental Coordinator.

Exempt Housing

Certain types of housing have been exempted from consideration by Subparts B through R of the LBP regulations:

1. Non-residential property (except "Child Occupied Facilities", as defined below).
2. Housing built after January 1, 1978.
3. Multi-family housing exclusively for occupancy by the elderly or by persons with disabilities. This exception does not apply if a child less than age 6 would reside or be expected to reside in a dwelling unit. This exemption does not apply to the Section 504 program.
4. Zero-bedroom dwellings (i.e. efficiency apartments, single-room occupancy housing, dormitories, military barracks, etc.).
5. Property found free of LBP by a certified LBP inspector.
6. Property where all LBP has been removed and clearance has been issued.
7. Unoccupied housing that will remain vacant until it has been demolished.
8. Any rehabilitation or improvement of a house that does not disturb a painted surface.

A "Child Occupied Facility" is defined as a building constructed prior to 1978; visited regularly by the same child, 6 years of age or under, on at least 2 different days within any week (Sunday through Saturday period), provided that each day's visit lasts at least 3 hours and combined annual visits total at least 60 hours. Child-occupied facilities may include, but are not limited to, day-care centers, preschools, and kindergarten classrooms. Rural Development programs (i.e. Business and Industry and Community Facilities) that provide federal assistance for child-occupied facilities must comply with EPA LBP requirements found in 40 CFR Part 745, Subpart L.

Possible Funding Sources for Compliance Activities

Properties owned by Rural Development and accounts in liquidation are eligible for Program Loan Cost Expense Funds. Program Loan Cost Funds cannot be used to fund LBP hazard reduction activities for borrowers or loan applicants. The funding of LBP hazard reduction activities is also an eligible loan cost for borrowers. In addition, grants may be available to our Rural Development borrowers from other federal, state, local, and private sources.

State and Local Requirements

Sellers, lessors, owners, and agents are not relieved of any responsibility for compliance with state and local laws, ordinances, codes, and regulations governing LBP and LBP hazards as the result of achieving Rural Development's LBP compliance criteria. Rural Development assumes no responsibility ensuring compliance with such state and local requirements.

Lead-Based Paint Information Sources

The EPA, HUD, and Consumer Product Safety Commission have jointly produced a LBP awareness pamphlet entitled, *"Protect Your Family from Lead in Your Home"*. This pamphlet is a good source of general information on LBP hazards found in residences and is available in English and Spanish versions. The pamphlet can be obtained from the Rural Development Property and Supply Management Division in St. Louis. To requested copies of this pamphlet, complete RD Form 2024-4, *"Request for Forms/Supplies/Pamphlets Listed in Rural Development Supply Catalogue*" (Stock #494 for English or #494-S for Spanish), and fax requests to 1.800.336.3604. This pamphlet is also available on EPS's Internet site in English, Spanish, and Vietnamese @ http//www.epa.gov/opptintr/lead/leadprot.htm. Sample disclosure forms are also available in English and Spanish on HUD's Internet site @ http://www.hud.gov/offices/lead/disclosurerule/index.cfm#forms.

HUD sponsors an Internet site that can be useful for locating qualified LBP service providers (lead inspectors, risk assessors, and abatement contractors), renovators trainee in lead-safe practices (lead-trained renovators), EPA-recognized lead analysis laboratories, and lead training providers @ http://www.leadlisting.org. Reference information is also provided on Rural Development's Intranet site in the Rural Housing Service's document library.

Points of Contact

Questions pertaining to this ATG and the LBP regulations should be directed to the State LBP Support Team. If further clarification is needed, please direct questions to the National Office Program Support Staff: Linda Rodgers, Senior Environmental Protection Specialist @ 202.720.9647.

Cost Data for LBP Investigation and Remediation

Maintaining a cost data for critical LBP investigation and remediation components is critical for statewide dissemination. Costs associated with all contracts for lead based paint hazard reduction, for compliance with the HUD 1012 Rule, (in all program areas) should be forwarded to the State Environmental Coordinator. Detailed information is particularly crucial. Please forward by fax, email, or regular mail in this regard: (1) the scope-of-work of the service(s) and (2) the cost information (i.e. bids). There are no special formatting requirements for any of this information at this time. A simple photocopy of the information would be fine with any annotations you feel would be pertinent.

Frequently Asked Questions

What exactly is "lead-based paint"?

"Lead based paint", per the HUD 1012 Rule, is paint or other coatings on a surface which has a lead content equal to or above an established threshold. The federal standards are 1.0 milligrams per square centimeter (1.0 mg/cm²) or 0.5% (5,000 parts per million). A few states and cities have different thresholds. The amount of lead in paint and other coatings can vary widely from zero to over 50% by weight. Paint and other coatings that fall below these established thresholds may still contain some lead. Lead was banned in U.S. residential paint (to no more than 0.06%) in 1978.

"Lead based paint hazards" are conditions (defined in federal law) that cause exposure to lead at levels harmful to humans. Deteriorating leaded paint is of special concern, but children do not have to eat paint chips to be poisoned. Most children are poisoned by ingesting lead contaminated dust, which can be invisible to the naked eye. Lead dust settles on surfaces such as floors, gets on children's toys and hands, and then into their mouths. Exposure can also result from lead contaminated bare soil and lead-based paint on surfaces that are worn down by friction, are repeatedly subject to impact, or are chewed. Intact lead based paint on surfaces such as walls and ceilings is not considered a hazard.

Could lead-based paint be remediated by simply painting over it?

Yes and no…..

Just painting over it is not considered compliance with the HUD 1012 Rule. There has already been litigation in this area. Painting over it with an approved "encapsulation" paint, however, is considered O.K.

"Encapsulation" paints are products specially designed to coat and seal surfaces covered or coated with lead based paint to prevent exposure to lead. These products may be used when performing a lead abatement. There are a number of different encapsulant products on the market, and their quality and effectiveness are believed to vary. National performance standards have been developed by the American Society for Testing and Materials (ASTM E 1795, E 1796, and E 1797). Encapsulants are not recommended for friction surfaces or surfaces that are badly deteriorated

What are the costs associated with LBP investigation and remeditation?

Cost is one of the greatest concerns with respect to implementing the HUD 1012 Rule. Following are some interesting cost numbers for lead based paint hazard reduction projects back East:

New York City:
average cost of $5,000 to $6,000 per apartment

State of Rhode Island survey:
average cost of $7,000 to $9,000 per unit (apartments and detached SFH residences)

Vermont study of 27 homes (1996-1997):
average cost of $4,500 per home with a range of $1,200 to $12,300 per home

How should statements of work be constructed?

Statements of Work (SOW) should be worded to avoid (1) asking for more work than is necessary and (2) not asking for the correct end product with respect to the HUD 1012 Rule. It is suggested that SOWs be carefully prepared to ask for the correct level of clean-up as anticipated and as encountered. It is also recommended that SOWs be worded generally, avoiding being too specific, so that no legal liability would be incurred by RD for missing or misstating a certain regulatory criteria. It would be preferable, for example, to simply state something to the effect that, "all work will conform to the criteria of the "Residential Lead Based Paint Hazard Reduction Act of 1992" [42 USC 4851 et seq. as further contained in 24 CFR Part 35…..".

What about seller accomplished LBP mitigation versus contracted out LBP mitigation?

Certain parts of the HUD lead based paint hazard decision key permit sellers to certify that mitigation has been properly accomplished. National Office staff have stated during teleconferences that, if there were any question about the accuracy of this by RD personnel, it should at least be disclosed to the purchaser and documented in the file's running record.

The breakdown for who is capable of performing what services sorts out as follows:

Rehab less than $5,000:	Sampling and clearances must be performed by certified parties
Rehab from $5,000 to $25,000:	Testing, interim controls, and clearances must be performed by certified parties
Rehab more than $25,000:	All work must be performed by certified parties

What about LBP investigation/mitigation terminology, per the HUD 1012 Rule?

<u>Abatement</u>

Abatement is a process to permanently (20 years or more) control a lead hazard to limit exposure to harmful levels of lead. Abatement can include strategies such as component

replacement, paint removal, encapsulation with an approved product, or permanently covering bare lead contaminated soil. Specialized cleaning precedes clearance testing, which is always performed at the end of an abatement project to ensure that dust which may be left behind does not contain excessive levels of lead.

Clearance Testing

Clearance testing is done at the end of a hazard control action, such as lead abatement, to determine whether the housing unit has any hazardous levels of leaded dust such as may be released during abatement. Results from clearance testing are used to determine whether the housing unit may be reoccupied after the hazard control action. Clearance testing may also be performed following renovation activities to ensure freedom from hazardous levels of leaded dust that might have been generated and not removed during renovation.

Dust Testing

Dust testing is a procedure used to measure the amount of leaded dust on a horizontal surfaces, such as a floor or window sill. Typically, dust testing is performed by collecting dust samples using pre-moistened towelettes (dust wipes), and sending the samples to a laboratory accredited under the NLLAP for analysis (see lead analysis laboratories). Results from dust testing are expressed in terms of micrograms of lead per square foot (mg/ft^2). Dust testing can be taken as an initial step to determine if hazardous levels of lead exist (for example, as part of a risk assessment) or at the end of lead abatement or other hazard control work to determine if the unit may be reoccupied (see clearance testing). Attention to dust lead levels is important because ingesting contaminated dust is the most common route of children's exposure to lead.

Essential Maintenance Practices

Essential maintenance practices are a set of measures designed for pre-1978 rental properties that may contain lead based paint. These are low cost measures intended to reduce the chance that lead hazards will develop, avoid the inadvertent creation of hazards, and ensure the prompt, safe, and effective repair of deteriorating paint. These practices are appropriate for properties in good condition but are not designed to control lead hazards in higher risk properties.

Interim Controls

Interim controls are strategies that manage lead based paint in-place on an ongoing basis in ways to limit exposure to harmful levels of lead. Interim controls include such measures as proper preparation and repair of peeling lead-based paint (including identification and control of the causes of peeling paint), specialized cleaning for lead dust, and temporary covering of lead contaminated bare soil, such as with mulch or gravel. Interim controls always include periodic monitoring and ongoing maintenance to ensure that lead-based paint does not deteriorate and result in a lead hazard.

Lead Analysis Laboratories

Lead analysis laboratories are laboratories that perform lead analysis on collected samples such as paint chips, soil, and/or dust collected on wipes (dust wipes). The U.S. Environmental Protection Agency (EPA) recognizes lead laboratories accredited under the National Lead

Laboratory Accreditation Program (NLLAP) as capable of performing these analyses. The National Lead Laboratory Accreditation Program (NLLAP) is a laboratory accreditation program whereby EPA recognizes laboratories as being proficient for analyzing for lead in several sample matrices (paint chips, soil, and/or dust wipes). Laboratory analysis of samples collected for lead determinations are required to be performed by a laboratory accredited under the NLLAP (40 CFR Part 745).

Lead Evaluation Service

Lead evaluation services are performed to evaluate the presence of lead in a structure. Types of lead evaluation services include lead inspections and lead risk assessments. Lead evaluation services are performed by trained lead inspectors and trained risk assessors. As of March 1, 2000, anyone performing lead evaluation services must be certified (licensed) by a state or by EPA.

Lead Hazard Control Plan

A lead hazard control plan is a property wide approach to controlling lead hazards in multi-family properties (apartment buildings). This plan is developed by a Certified Risk Assessor based on a lead risk assessment to identify lead hazards, and establishes clear procedures and a systematic approach to their control. Among other things, these plans call for early attention to units occupied by a family with a young child, and incorporate lead paint work into other repair and capital improvement projects. The concept for the lead hazard control plan has been incorporated in American Society for Testing and Materials (ASTM) standard No. PS 61-96.

Lead Hazard Control Service

Lead hazard control services are performed to control any hazards that result from the presence of lead in a structure. Types of lead hazard control services include lead abatements and interim controls. Lead hazard control services are performed by trained lead service providers. Trained lead service providers can be titled under a variety of names, but are generally classified as: lead project designers, lead supervisors, and lead workers. As of March 1, 2000, anyone performing lead hazard control must be certified (licensed) by a state or the EPA.

Lead Inspection

A lead inspection is designed to answer two questions: "Is there lead-based paint present in the housing unit?" and "Where is the lead-based paint?" Surveying a housing unit for lead-based paint is typically performed using an X-Ray Fluorescence analyzer, called an XRF. Paint or other coatings with lead levels above the established threshold are considered lead based (see the definition for lead-based paint). The HUD Guidelines include a protocol for conducting a lead inspection. A Final Inspection Report identifies all surfaces with lead based paint but does not provide the consumer with information about the condition of the paint, the presence of lead contaminated dust or soil, or options for controlling any hazards found.

A lead paint inspection is most appropriate for property owners who need to know where lead based paint is located, such as in the following situations:

People considering renovation, remodeling or demolition work that would disturb painted surfaces and may generate lead dust hazards unless proper precautions are followed.

Home sellers desiring specific information about lead for marketing purposes.

Home buyers or renters who want to know how much lead paint is present and its location (or who feel strongly that they want a home that contains no lead-based paint).

Rental property owners seeking exemption from the federal lead disclosure requirements by demonstrating that a specific property does not contain lead based paint.

Rental property owners who might need or desire documentation about lead based paint for insurance, financing, or other reasons.

Those facing a state or local requirement to abate all lead based paint

Lead Risk Assessment

A lead risk assessment identifies lead based paint hazards. Lead based paint hazards are conditions that can cause harmful exposures to lead, particularly for young children and pregnant women.

Risk assessors identify lead based paint hazards by conducting a visual examination of the dwelling for signs of paint deterioration, analyzing deteriorated paint to determine if it is lead based (e.g., sending paint chips to a laboratory for analysis or using an XRF analyzer on-site), and collecting dust and soil samples for laboratory analysis. A Risk Assessment Report identifies lead based paint hazards found, and provides options for controlling these hazards. The HUD Guidelines provide general guidance for conducting a risk assessment.

Risk assessments may be appropriate in the following situations:

Parents who are concerned about their child's lead exposure in their current home.

Owners, buyers, or renters who want to know if a home has lead hazards that would likely pose a risk to their family and if so, what control options are available.

Home sellers (lessors) who want to document the presence or absence of lead-based paint hazards in their property so as to reduce potential buyers' (renters') concerns about lead hazards.

Owners of multi-family properties who may need a risk assessment (or a risk assessor developed Lead Hazard Control Plan) in order to qualify for insurance or financing, or to provide additional documentation for liability purposes.

When states or local governments require owners to conduct a risk assessment because a child living in the housing unit has an elevated blood lead level.

(Note that public health department environmental investigations of children with elevated blood lead levels often involve more comprehensive evaluations than a standard risk assessment).

Property owners who want to understand the full range of hazard control options that can be used to address lead based paint hazards.

Lead Service Provider

The terms used for lead service provider titles (lead inspector, lead abatement contractor, etc.) vary greatly among the EPA-authorized (the case in Colorado) and EPA administered states. HUD has attempted to minimize any potential confusion by using only four titles: lead inspector, lead risk assessor, lead supervisor, and lead project designer. Following are definitions for each of these four titles:

A Lead Inspector is any certified person who provides the service defined above as "Lead Inspection".

A Lead Risk Assessor is any certified person who provides the service defined above as "Lead Risk Assessment".

A Lead Supervisor (Contractor) is any certified or trained business entity or person who is responsible for performance of the actual abatement within a lead abatement project. Within some states, supervisors (contractors) may be authorized to serve as project designers for small lead abatement projects.

A Lead Project Designer is any certified person who plans and/or designs lead abatement projects. Project Designers are generally used for planning large lead abatement projects. Within some states, project designers may also be required for small lead abatement projects.

Spot Test Kits

Spot test kits are the common name for products sold over-the-counter, which are used to detect lead in a paint chip, piece of pottery, etc. The chemicals used turn color when they come in contact with lead or other elements. While these tests are low cost and give immediate results, they are not currently recommended by HUD or EPA for use during the conduct of lead inspections and lead risk assessments.

Can contracting be streamlined?

It is recommended that some steps in the HUD Compliance Key be combined in the interest of saving time and expense, from a contracting perspective. Where Lead Inspection and Lead Risk Assessment are both required, that Lead Inspection could be bypassed, for example, and Lead Risk Assessment be contracted as the first step.

How far should one look for LBP hazards with respect to Section 504 repair loans and grants?

National Office staff have stated in teleconferences that where a lead based paint hazard might be encountered as part of a 504 purpose repair, it need only be fully investigated and remediated with regard to that repair. Rural Development staff do not have a responsibility to intentionally look elsewhere in the particular residence for lead based paint hazards.

What are some areas to visually search for LBP hazards?

Deteriorated lead-based paint,

Lead-based paint on friction surfaces,

Lead-based paint on impact surfaces,

Lead-based paint on accessible surfaces,

Lead-contaminated dust, and

Lead contaminated soil.

What are two types of evaluations of lead-based paint hazards?

Inspection: surface-by-surface testing and

Risk assessment: finding the location(s) of lead-based paint hazards.

What are two types of hazard reductions of lead-based paint hazards?

Interim controls: a temporary fix by reducing the exposure to the hazards and

Abatement: a permanent fix by eliminating the hazards (removal, paint stripping, enclosure, or encapsulation).

What are minimus areas (small jobs) where "safe work practices" could be employed for LBP mitigation?

20 s.f. or less of exterior surface area,

2 s.f. or less of interior surface area, and

10 percent of a component with a small surface area.

What are acceptable and unacceptable methods of treatment and/or abatement?

Acceptable methods of treatment and/or abatement include:

Replacement of components,
Enclosure,
Encapsulation, and
Paint removal.

Prohibited methods of paint removal include:

Open flame burning or torching,
Machine sanding or grinding,
Unconfined hydroblasting or high pressure wash,
Abrasive blasting or sandblasting,
Heat guns operating over 1,100 degrees F,
Dry scraping or dry sanding, and
Chemical strippers containing methyline chloride.

What basic LBP hazard notifications should be provided to interested parties?

Prospective purchasers, tenants, or renters should receive notification of the hazards of lead-based paint prior to purchase or rental in the following form:

EPA/CPSC/HUD pamphlet, *"Protect Your Family from Lead in your Home"*
(Available for downloading @ http://www.epa.gov/lead/leadpdfe.pdf)
or

Attachment I of Exhibit H of RD Instruction 1924-A, *"Warning - Hazards of Lead-Based Paint"*.
(Available for downloading @ http://www.hud.gov/offices/lead/1018/selr_eng.pdf)

HUD has produced a pamphlet on the subject of safely performing maintenance and repair work when lead based paint materials are involved. It is entitled, *"Lead Paint Safety: A Field Guide for Painting, Home Maintenance, and Renovation Work"*. It can be obtained from the National Lead Information Clearinghouse, at 1-800-424-LEAD, or @ http://www.hud.gov/lea.

You can also obtain the EPA's pamphlet**,** *"Reducing Lead Hazards When Remodeling Your Home"*, from the National Lead Information Clearinghouse or @ http://www.epa.gov/opptintr/lead.

Finally, you can obtain HUD's comprehensive document**,** *"Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing"*, @ http://www.hud.gov/lea or by mail from HUD USER at 1-800-245-2691.

What are program eligible costs?

Inspection and testing are considered nonrecoverable costs and may be charged to the "A" fund. Apparently, for REO properties there is a $100,000 annual set-aside at National Office for this purpose.

Treatment/abatement, on the other hand, is considered a direct recoverable cost because it would add to the value of the property. It may, therefore, be amortized into a loan. Apparently, for REO properties there is a $700,000 annual set-aside at National Office for this purpose.

Who can perform LBP activities?

A clearance examination must be done by a person who was not involved in performing the hazard control work and who is certified (or licensed) as a lead-based paint inspector, risk assessor, or clearance technician in the State or Indian Country in which the housing is located. (There are

some limitations on the extent of clearances in multifamily housing that can be done by certified clearance technicians.) A clearance examination can also be done by a person who has been trained but not certified as a clearance technician, provided a certified lead-based paint inspector or risk assessor approves the work of the clearance technician and signs the report of the clearance examination.

Paint testing and full lead-based paint inspections must be done by a certified lead-based paint inspector. A risk assessment must be done by a certified risk assessor.

Abatement of lead-based paint or lead-based paint hazards must be done by a certified abatement worker, and the work must be supervised by a certified lead-based paint abatement supervisor.

Interim controls of lead-based paint hazards must be done by a person who is trained in accordance with the hazard communication standard (at 29 CFR 1926.59) of the U.S. Occupational Safety and Health Administration (OSHA) and who is either supervised by a certified abatement supervisor or has completed one of several training courses that explain how to conduct such work safely so as not to contaminate the environment or expose occupants to lead.

What is the difference between "abatement" and "interim controls"?

Abatement, as the term is used in the regulation, corrects hazards for at least 20 years. Abatement methods include removal of paint, replacement of painted building components, and enclosure or encapsulation of painted surfaces. If enclosure or encapsulation is used, the application must have an expected life of at least 20 years.

Interim controls correct lead-based paint hazards for a shorter period of time. The most common interim control is "paint stabilization" which utilizes "standard treatments" and stabilizing paint". If interim controls are used, ongoing maintenance of lead-based paint surfaces is necessary to ensure that the housing remains lead-safe.

If performed properly, both abatement and interim controls result in a lead-safe dwelling for children.

Utilizing standard treatments, all deteriorated paint is stabilized; all horizontal surfaces are made smooth and cleanable to prevent accumulation of lead dust; all friction and impact surfaces (that could generate lead dust and/or paint chips) are corrected, all bare soil is covered, and a final clearance test is passed.

Stabilizing paint is repairing any physical defect in the material beneath the painted surface that is causing paint deterioration, removing loose paint and other material from the surface to be treated using wet methods to reduce dust generation, and applying a new protective coating or paint.

Are any lists of certified LBP hazard contractors available?

HUD maintains a listing of certified firms and recognized laboratories for every State. The listing also includes accredited providers of training in lead-based paint activities. You can access the Lead Listing on the Internet @ http://www.leadlisting.org or by telephone toll-free at 1-888-LEADLIST. This information is also available from the National Lead Information Center on the Internet @ http://www.epa.gov/lead/nlic.htm or by telephone toll-free at 1-800-424-LEAD, and it also includes a list of accredited providers of training in lead-based paint activities.

Also reference the Colorado Department of Public Health and Environment (CDPHE) Internet site @ http://www.cdphe.state.co.us/ap/lead/page5.html which contains a button access to a .pdf format file entitled, *"Lead Services Directory"*, which is easily downloadable. This directory, which is updated periodically, lists all the firms doing business in Colorado who are certified to perform work under the HUD 1012 Rule. The directory is broken down into the following (among other) major headings which relate to the HUD 1012 Rule:

Laboratories providing blood level analysis,
Do-it-yourself home test kits,
Environmental consultants in Colorado with portable x-ray fluorescence analyzers,
Laboratories providing lead analysis in soil, paint chips, and dust wipe samples,
Colorado certified lead based paint abatement contractors,
Colorado certified lead based paint inspectors and risk assessors, and
Labs proficient in environmental Lead Proficiency Analytical Testing

The CDPHE certifies individuals, not firms, with respect to inspection and risk assessment services. The CDPHE certifies firms, not individuals, with respect to all the other HUD 1012 Rule type services, such as lab testing and abatement.

Following is a listing of LBP hazard contractors with whom Rural Development has worked with to date in Colorado:

Accurate Lead Testing
2615 Cherly St.
Ft. Collins, CO 80254
970-224-4923

Have actually accomplished services for several field offices.

Risk Assessment	$150
Testing:	$350

Anasazi Inspections, Inc.
33810 Road K.8
Mancos, CO 81328
970-560-4817
970-565-1406
970-565-1407 Fax

This firm can perform LBP hazard risk assessments and LBP hazard screens. It is certified to do LBP hazard paint inspections, but may not have the equipment for services beyond that.

Risk Assessment	$150

Phase Con Environmental Consultants
8527 W. Colfax Avenue, Suite 243
Lakewood, CO 80215
(303) 238-8629
Fax (303) 238-0402

Accomplished a risk assessment for a MFH project in Montrose for $1,475.

WMA Environmental Services, LLC
K. Scott Pieratt, Principal Geologist
Randall L. Williams, Project Engineer
2648 Santa Fee Drive, Suite #10

Pueblo, CO 81006
(719) 542-8507
1-800-637-7494
719-542-8508 Fax
719-250-4565 Cell

Has stated an interest in accomplishing LBP hazard work for SFH and MFH Programs.

Risk Assessment	1200 s.f.:	$300
	1200 s.f.-2000 s.f.:	$400
	2400 s.f - 3800 s.f.:	$500

plus mileage at .345 per mile and labor of $50 per hour in addition to above costs.

When is a certified LBP hazard contractor required?

The breakdown appears to be:

SFH homeowner:	Sampling only permitted by a non-certified contractor
All other cases:	Certified contractor required

The credentials of the professionals performing such work needs to be scrutinized (i.e. did a certified party take the samples; was the laboratory certified by the CDPHE; and was the clearance report preparer certified?).

What are professional LBP hazard services likely to cost?

The original HUD estimate of the cost of these services was as follows:

HUD Estimates for Hazard Evaluation:

	SFH unit	MFH unit
Visual Assessment:	$0	$0
Risk Assessment:	$375	$260
Paint Testing, Clearance, or Hazard Screen:	$150	$120
Work Site Clearance (Rehabilitation under $5,000):	$75	$60
Reevaluation:	$271	$217
Inspection:	$150	?

HUD Estimates for Hazard Reduction:

	SFH unit	MFH unit
Exterior Paint Stabilization:	$1,000	$100
Interior Paint Stabilization:	$500	$500
Window Work:	$300	$200
Window Replacement:	$5,000	$3,000
Other Friction/Impact Area:	$300	$200
Soil Cover:	$200	$10
Exterior Abatement:	$5,000	$250
Interior Abatement:	$3,000	$2,000
Unit Clean-Up:	$350	$265

Work Site Clean-Up:	$75	$50

Travel and per diem costs should probably be added to these numbers for projects in genuinely rural areas.

Use these numbers with discretion. Prices can be expected to be higher in rural areas where the availability of contractor services is more limited.

Please forward all cost information related to this type of work to the State Environmental Coordinator as it becomes available, by FAX or mail. Detailed information is requested. This will assist in the creation of a State database as well as standardized statements-of-work.

Does the party performing a LBP hazard clearance examination have to be a different legal entity from the party performing LBP hazard abatement services?

Yes, per 24 CFR 35.1340 (f).

What exactly is a building "component"?

The regulatory definition of a "component" (24 CFR 35.110) is,

> "Component means an architectural element of a dwelling unit or common area identified by type and location, such as a bedroom wall, an exterior window sill, a baseboard in a living room, a kitchen floor, and interior window sill in a bathroom, a porch floor, stair treads in a common stairwell, or an exterior wall."

A component could theoretically be: (1) a subcomponent of an assembly (i.e. a single board, such as a window sill), (2) an assembly (i.e. a window or a window and its trim), or (3) a group of assemblies (i.e. all the windows on a building or all the windows on a building and their trim).

A discussion with the National Office revealed their emphasis is on the lead hazards being removed from components in the affected areas, as identified by the LBP risk assessment, irregardless whether the scope is above or below the de minimus levels established by HUD for potential accomplishment by noncertified personnel (where "safe work practices" are not required):

> Exterior surfaces under 20 square feet in area,
>
> Interior surfaces under 2 square feet in area in any one room or space, and
>
> 10 percent of the total surface area of an interior or exterior "type of component with a small surface area".

What type of protection is required for occupants where LBP hazard reduction activities are planned?

The regulation (24 CFR 35.1345) has established several policies in this area:

> Occupants cannot enter the worksite during hazard reduction activities.
>
> Occupants are to be temporarily relocated away from the worksite before and during these activities.

Exceptions:

Treatment does not disturb lead based paint hazards.

Treatment only involves the exterior and avenues for lead dust contamination are sealed from the occupants.

Interior treatment will be completed within one period of 8 daytime hours and the worksite will be contained to prevent the release of leaded dust and debris.

Interior treatment will be completed within 5 calendar days and the worksite will be contained to prevent the release of leaded dust and debris.

The worksite shall be secured against unauthorized entry.

Occupants' belongings shall be protected from contamination or be relocated away from the worksite.

A warning sign shall be prominently displayed regarding the worksite.

What is the definition of "blood lead level intervention"?

24 CFR Part 35 states, regarding "child with an environmental intervention blood lead level",

> "If a child less than 6 years of age living in a federally assisted dwelling unit has an environmental intervention blood lead level, the owner shall immediately conduct a risk assessment in accordance with 40 CFR 745.227(d). Interim controls of identified lead-based paint hazards shall be conducted in accordance with 24 CFR 35.1330. Interim controls are complete when clearance is achieved in accordance with 24 CFR 1340. The Federal Agency shall establish a timetable for completing risk assessment and hazard reduction when an environmental intervention blood lead level is identified."

Additional Resources

RD Instruction 1924-A, Exhibit H, covers this subject (especially the effects on children) but is now getting dated. Other resources presently available include:

National Lead Information Center (EPA/HUD/CDC):	1-800-424-LEAD
EPA:	http://www.epa.gov/lead
HUD:	http:/www.hud.gov/lead
OSHA:	http://www.osha.gov

Should you have any questions, please feel free to contact the State Architect.

DAVID W. RIGIROZZI
State Architect
USDA/Rural Development